

----- the newsletter of the Sinclair Computer Users Society -----
SINCUS NEWS
 1229 Rhodes Road
 Johnson City, New York 13790
 ----- since 1982 -----

With this issue starts a multi-part series on Ray Byler's Spectrum/TS2068 ROM directories. It is in four parts, the Spectrum ROM directory listed alphabetically and cross referenced to the TS2068. Then the TS2068 ROM is listed alphabetically and cross referenced to the Spectrum. The last two parts have the ROMs listed by address and cross referenced. With Spectrum programs so popular, one can (hopefully) determine the 2068 ROM call, and change it to run on ones TS2068. I had hoped to have this ready by the CapitalFEST, but I had too many demands on my time to get a quality job out. Mr. Byler has given this listing to a number of user groups, and to my limited knowledge only CATS has begun to print it. Currently we have all listings on Oliger 40 track disk.

May Meet, the 1989 elections were held, and the single slate of officers slipped in again. Clyde Tackley the re-elected Prez and meself, again Secretary and newsletter editor, related tales of excitement, danger, big money and scenic sites, and also of the trip to the CapitalFEST. The rest of the re-elected officers are: Dave Schoenwetter, Vice President; George Penney, Treasurer; Carl Morris, Don Lamien Trustees. Discussions on what to do for the next year and how to draw on new members captured everyones attention.

Thanks to John Austin, McKinney, TX; Ike Walker, Boyton Beach, FL; and Arthur Murray, Patchogue, NY; for RENEWING. It is a pleasure to correspond with so many TS users around the US and Canada. Please check the mailing label, your subscription will expire with the notice under your address, "Last issue". We would be pleased to continue your subscription upon receipt of your \$8 check for another year of SINCUS NEWS.

In the last issue I wrote an article entitled "A New 2068 Bug?", relating a problem I incurred when editing lines of a BASIC program, and renumbering the line for a new line of a program. George Chambers wrote a note suggesting the accidental imbedding of a code in the line of BASIC. He says that in the 'E' mode, (Extended basic mode) one can change the attributes of the characters (e.g., colors) with "buried" commands. After trying several buried commands, one can see code changes in the printouts of the BASIC program, but am as yet not sure this is the cause of the BUG as it hasn't apparently caused a problem in several test tries. I appreciate the comments George, you may be on to something here, it will take a bit of time to duplicate the orginial problem.

page 1.....Local club news	+	----- Meeting DATES 1989 -----
page 2.....NEWS & Don's 1000 tips	+	
page 3 - 7.....Ray Byler's 2068/Spec ROM	+	JUL 19 Wednesday
page 8 - 9.....News & Swap Disc 105 info	+	AUG 16 Wednesday
page 10.....Club Notes, policy	+	SEP 20 Wednesday
	+	OCT 18 Wednesday
Read Elections Results- same slate as	+	
last year- see page 10- come on in, its	+	the 3rd Wednesday of
safe again to go to the meets!	+	the month
-- Support your local User Group today!	---	----- 7pm Vestal Library -----

From the Vancouver SUG newsletter, the "buyer beware" note carried in last issue of SINCUS NEWS has a good ending to it. If you have had any problem with Insomniac Electronics, write to Jim Horne and explain the problem. The people with the Vancouver user group say he is working out all problems and getting back on track.

Update from S.N.U.G. - "

"MAXCOM" review - where does the time go? The BBS mode is rather complex, and I need to get a clear line, a buddy with a modem and TIME to read the instructions. With two teenage girls it is difficult to ever get on the phone or get a phone call, except at three in the morning. Hopefully one day soon, in the meantime, if you have a LARKEN system - get Maxcom, the terminal mode is great!

ZXB1/TS1000 Tips - by Don Lamen, SINCUS

15. Here is a short program to handle OCTAL INPUTS and OCTAL DUMPS.

```

10 PRINT AT 0,10;"** OCTAL **",,,,"1. WRITE",,"2. LIST";AT 20, 0; "MAKE SELECTION
(1 OR 2) "
20 INPUT A$
30 IF A$ < > 1 AND A$ < > 2 THEN GOTO 20
40 GOTO 100+(200 AND A$ = "2")
100 CLS
110 PRINT "OCTAL INPUT",,"ADDRESS (DEC) ";
120 INPUT A$
130 LET A = VAL A$
140 PRINT A;AT 20,0;"ENTER OCTAL CODE (3 DIGITS);AT 3,0;
150 INPUT C$
160 IF C$ = "S" OR C$ = "" THEN STOP
170 IF LEN C$ < > 3 THEN GOTO 150
180 FOR K = 1 TO 3
190 IF C$(K) > 7 THEN GOTO 150
200 NEXT K
210 PRINT C$;" ";
220 LET N = VAL C$(1)*64+VAL C$(2)*8+VAL C$(3)
230 POKE A,N
240 LET A = A+1
250 GOTO 150
300 CLS
310 PRINT "OCTAL LIST",,"ADDRESS (DEC) ";
320 INPUT A$
330 LET A = VAL A$
340 PRINT A;" TO ";
350 INPUT A$
360 LET B = VAL A$
370 PRINT B,,,
380 FOR K = A TO B
390 LET N = PEEK K
400 LET C = INT (N/64)
410 LET D = INT ((N-64*C)/8)
420 LET E = N-64*C-8*D
430 PRINT K;" ";C;D;E
440 NEXT K

```

The following four part catalog of the Spectrum and TS2068 ROMs comes to you through the efforts of:

Ray Byler, Fort Riley, Kansas, June 1988

SPECTRUM ROM ENTRY POINTS INDEXED ALPHABETICALLY

- UNNAMED ENTRY POINTS -

SPECTRUM NAME	HEX	DEC	TS2068 NAME	HEX	DEC
(AT Ctrl Char)	0A9B	02715	SET_AT	05B2	01458
(Cassette Msgs)	09A1	02465	SEPRMT	3C89	15497
(Chan Code Tbl)	162D	05677	(Channel Flags)	1293	04755
(Char Dot Ptrns)	3D00	15616	CH_SET	3D00	15616
(Clse Strm Tbl)	1716	05910	(Clse Strm Tbl)	1407	05127
(Cmd Class Tbl)	1C01	07169	(Cmd Class Tbl)	1B64	07012
(Cmd Offsets)	1A48	06728	(Cmd Offsets)	1945	06469
(Compare X&Y)	24BA	09402	DRAWLN	2B13	10259
(Ctrl Char Tbl)	0A11	02577	(Ctrl Char Tbl)	0528	01320
(Edit Keys Tbl)	0FA0	04000	(Edit Keys Tbl)	0B06	02822
(Ex Mode Ltrs)	022C	00556	(Ex Mode Ltrs)	0268	00616
(Fnd Stmt Sub)	198B	06536	SUBLIN	16F0	05872
(In Command)	34A5	13477	(In Command)	3864	14436
(Init Chan Info)	15AF	05551	CHINIT	11AA	04522
(Init Strm Data)	15C6	05574	SINIT	11C1	04545
(Key Tables)	0205	00517	KSCAN	0227	00551
(LD D,0)	1860	06240	LPO	15AC	05548
(Make Strm Dt=0)	16EB	05867	RSTSTR	13AB	05032
(Opn Strm Tbl)	177A	06010	(Opn Strm Tbl)	14C7	05319
(Peek Command)	34AC	13484	(Peek Command)	3B6B	14443
(Pop HL & AF)	004F	00079	PHLAF	004F	00079
(Program: msg)	09C1	02497	LDMES	3CA9	15529
(Report Msgs)	1391	05009	RPTMSG	0F65	03941
(Scroll? Msg)	0CF8	03320	(Scroll? Msg)	0B33	02099
(Sinclair Logo)	15C9	05577	(Timex Logo)	1118	04376
(Token Table)	0095	00149	TOKENS	0098	00152
(Tone Table)	046E	01134	(Tone Table)	04AC	01196

- NAMED ENTRY POINTS -

SPECTRUM NAME	HEX	DEC	TS2068 NAME	HEX	DEC
ACS	3B43	14403	ACS	3C5E	15454
ADD-CHAR	0F81	03969	INSA	0AE7	02791
ADDITION	3014	12308	ADD	33D3	13267
ALPHA	2C8D	11405	ALPHA?	304B	12363
ALPHANUM	2C8B	11400	ALNUM?	3046	12358
ASN	3833	14387	ASN	3C4E	15438
ATN	37E2	14306	ATN	3BFD	15357
AUTO-LIST	1795	06037	LIST	14E1	05345
BC-SPACES	0030	00048	(BC Workspaces)	0030	00048
BEEP	03F8	01016	BEEP	0436	01078
BEEPER	03B5	00949	PARP	03F3	01011
BORDER	2294	08852	BORDER	243E	09278
BREAK-KEY	1F54	08020	BREAK?	2009	08201
CO-TEMP-7	2234	08756	COLOUR	23DE	09182
CO-TEMP-C	2273	08819	HIFLSH	241D	09245
CALCULATE	335B	13147	CTRO	371A	14106

SPECTRUM NAME	HEX	DEC	TS206B NAME	HEX	DEC
CAT-ETC.	1793	06035	CAT	25C8	09672
CAT-ETC.	1793	06035	FORMAT	25CC	09676
CAT-ETC.	1793	06035	MOVE	25D0	09680
CAT-ETC.	1793	06035	ERASE	25D4	09684
CH-ADD+1	0074	00116	NEXTCH	0074	00116
CHAN-FLAG	1615	05653	SEL_HL	1248	04680
CHAN-K	1634	05684	(Set K Flags)	129A	04762
CHAN-OPEN	1601	05633	SELECT	1230	04656
CHAN-P	164D	05709	(Set P Flags)	12B3	04787
CHAN-S	1642	05698	(Set S Flags)	12A8	04776
CHECK-END	1BEE	07150	END?	1B44	06980
CIRCLE	2320	08992	CIRCLE	2679	09849
CL-ADDR	0E9B	03739	(Get DF Address)	09D6	02518
CL-ALL	0DAF	03503	CLS	08EA	02282
CL-ATTR	0E88	03720	(CI Attributes)	09C3	02499
CL-LINE	0E44	03652	CLS_B	097F	02431
CL-SC-ALL	0DFE	03582	SCRL	0939	02361
CL-SET	0DD9	03545	SETCUR	0914	02324
CL-SET	0DD9	03545	SETTVC	0914	02324
CLASS-01	1C1F	07199	TEM1	1882	07042
CLASS-03	1C0D	07181	(Class 3 Cmds)	1870	07024
CLEAR	1EAC	07852	CLEAR	1F36	07990
CLEAR-FRB	0EDF	03807	CLPR	0A35	02613
CLEAR-RUN	1EAF	07855	CLR_BC	1F39	07993
CLEAR-SP	1097	04247	DEL_K	0BFD	03069
CLOSE	16E5	05861	CLOSE	139F	05023
CLOSE-2	1701	05889	CLCHAN	13BE	05054
CLOSE-STR	171C	05916	(Close Strm Sub	140D	05133
CLS	0D6B	03435	K_CLS	08A6	02214
CLS-LOWER	0D6E	03438	CLLMS	08A9	02217
CO-TEMP-1	21E1	08673	(Tst fr Clr Cd)	238B	09099
CO-TEMP-2	21E2	08674	GR_COL	238C	09100
CO-TEMP-3	21F2	08690	(Test for Ink)	239C	09116
CO-TEMP-4	21FC	08700	COLITM	23A6	09126
CO-TEMP-5	2211	08721	TV_COL	238B	09147
CONTINUE	1E5F	07775	CONT	1EE4	07908
COPY	0EAC	03756	K_DUMP	0A02	02562
COPY-BUFF	0ECD	03789	DUMPPR	0A23	02595
COPY-LINE	0EF4	03828	PRSCAN	0A4A	02634
COS	37AA	14250	COS	3BC5	15301
CP-LINES	1980	06528	CP_BC	16E8	05864
DATA	1E27	07719	DATA	1E82	07810
DEC-TO-FP	2C9B	11419	STKUSN	3059	12377
DEF-FN	1F60	08032	DEF	201D	08221
DIFFER	19DD	06621	(Dif of Length)	1745	05957
DIM	2C02	11266	DIM	2FC0	12224
DIVISION	31AF	12719	DIVIDE	356E	13678
DRAW	23B2	09090	DRAW	26DB	09947
DRAW-LINE	24B7	09399	DRAW_L	2810	10256
E-LINE-NO	19FB	06651	LINENO	1768	05992
E-TO-FP	2D4F	11599	XEY	310D	12557
EACH-STMT	198B	06539	SUBLN1	16F3	05875

SPECTRUM NAME	HEX	DEC	TS2068 NAME	HEX	DEC
ED-COPY	111D	04381	ECHO	0C83	03203
ED-DELETE	1015	04117	DELSYM	0B7B	02939
ED-DOWN	0FF3	04083	(Cursor Down)	0B59	02905
ED-EDGE	1031	04145	(Put Cursor)	0B97	02967
ED-EDIT	0FA9	04009	(Do Edit)	0B0F	02831
ED-ENTER	1024	04132	(Restre ERR-SP)	0B8A	02954
ED-ERROR	107F	04223	(Edit Error)	0BE5	03045
ED-IGNORE	101E	04126	(End Edit)	0B84	02948
ED-LEFT	1007	04103	(Cursor Left)	0B6D	02925
ED-RIGHT	100C	04108	(Cursor Right)	0B72	02930
ED-SYMBOL	1076	04214	(Sym & Grph Cd)	0BD7	03031
ED-UP	1059	04185	(Cursor Up)	0BBF	03007
EDITOR	0F2C	03884	EDIT_K	0A82	02690
ERROR-1	0008	00008	(Print Error)	0008	00008
ERROR-2	0053	00083	(Error-2)	0053	00083
ERROR-3	0055	00085	LE3	0055	00085
EXP	36C4	14020	EXP	3ADF	15071
EXPT-1NUM	1C82	07298	TEM6	1BE5	07141
EXPT-EXP	1C8C	07308	TEM10	1BEF	07151
FETCH-NUM	1CDE	07390	OPTNO	1C49	07241
FETCH-TWO	2FBA	12218	SUMSLD	3379	13177
FIND-INT1	1E94	07828	FIX_U1	1F1E	07966
FIND-INT2	1E99	07833	FIX_U	1F23	07971
FN-SKPOVR	2BAB	10411	NXT_HL	2C69	11369
FOR	1D03	07427	FDR	1C78	07288
FP-0/1	350B	13579	STBCOL	3926	14630
FP-CALC	0028	00040	(FP Calculator)	0028	00040
FP-TO-A	2DD5	11733	FP2A	3193	12691
FP-TO-BC	2DA2	11682	FP2BC	3160	12640
GET-ARGT	3783	14211	ANGLE	3B9E	15262
GET-CHAR	0018	00024	(Get Character)	0018	00024
GO-SUB	1EED	07917	GO_SUB	1F99	08089
GO-TO	1E67	07783	JUMP	1EF1	07921
GO-TO-2	1E73	07795	GOTO_2	1EFD	07933
HL=HL*DE	30A9	12457	MULT	3468	13416
IF	1CF0	07408	(If Command)	1C5B	07259
IN-CHAN-K	21D6	08662	NOTKB?	2380	09088
IN-ITEM-1	20C1	08385	I_SEQ	226B	08811
INDEXER	16DC	05852	SEARCH	136B	04971
INPUT	2089	08329	INPUT	222B	08747
INPUT-AD	15E6	05606	INCH	11E1	04577
INT	35AF	13999	INT	3ACA	15050
INT-FETCH	2D7F	11647	LDDE	313D	12605
INT-STORE	2D8E	11662	STDE_S	314C	12620
INT-TO-FP	2D3B	11579	ININT	30F9	12537
JUMP-C-R	1C16	07190	(Jmp to TADDR)	1B79	07033
K-DECODE	0333	00819	CHCODE	0371	00881
K-NEW	02F1	00753	(New Key)	0317	00791
K-REPEAT	0310	00784	(Key Repeat Fn)	0336	00822
K-TEST	031E	00798	K_BASE	035C	00860
KEY-INPUT	10A8	04264	IN_K	0C0E	03086
KEY-INT	0048	00072	(Keyboard Int)	0048	00072

SPECTRUM NAME	HEX	DEC	TS2068 NAME	HEX	DEC
KEY-LINE	0296	00662	(Scanning Loop)	028B	00696
KEY-SCAN	02BE	00654	K_SCAN	02B0	00688
KEYBOARD	02BF	00703	UPD_K	02E1	00737
L-NUMERIC	2B59	11097	L_NUM	2F17	12055
LD-BLOCK	0802	02050	(Ld Data Block)	X5C6	X1478
LD-BYTES	0556	01366	R_TAPE	X0FC	X0252
LD-CONTRL	0808	02056	LOAD	X5CC	X1484
LD-EDGE-1	05E7	01511	R_EDGE	X18D	X0397
LD-EDGE-2	05E3	01507	RD_BIT	X189	X0393
LET	2AFF	11007	LET	2EBD	11965
LINE-ADDR	196E	06510	FIND_L	16D6	05846
LINE-END	1BB3	07091	(Ftch Add Nxtln	1B09	06921
LINE-NEW	1B9E	07070	(Fnd Adrs Newln	1AEC	06892
LINE-NO	1695	05781	GET_LN	1324	04900
LINE-RUN	1B8A	07050	EXECUTE	1AD8	06872
LINE-SCAN	1B17	06935	SYNTAX	1A27	06695
LINE-USE	1BBF	07103	(Fnd # Newline)	1B15	06933
LINE-ZERO	168F	05775	(Find Line No.)	131E	04894
LIST	17F9	06137	K_LIST	1545	05445
LLIST	17F5	06133	K_LLST	1541	05441
LN	3713	14099	LN	3B2E	15150
LN-FETCH	190F	06415	NEXT_L	165B	05723
LN-STORE	191C	06428	DE_HL	1668	05736
LOC-MEM	3406	13318	ARRAY	37C5	14277
LOOK-PROG	1D86	07558	SKIP	1D28	07464
LOOK-VARS	28B2	10418	FIND_N	2C70	11376
LPRINT	1FC9	08137	K_LPR	2155	08533
MAIN-1	12A9	04777	LED18	0E2F	03631
MAIN-4	1303	04867	LED4	0E8D	03725
MAIN-ADD	155D	05469	(Add BASIC Line	1158	04440
MAIN-EXEC	12A2	04770	(Edit Mode Lp)	0E28	03624
MAKE-ROOM	1655	05717	INSERT	12BB	04795
MASK-INT	0038	00056	(Maskable Int)	0038	00056
ME-CONTRL	08B6	02230	MERGE	X6E5	X1765
MOVE-FP	33C0	13248	RAMNO	377F	14207
MULTIPLY	30CA	12490	TIMES	3489	13449
N-MOD-M	36A0	13984	INTDIV	3ABB	15035
NEGATE	346E	13422	NEGATE	382D	14381
NEW	11B7	04535	K_NEW	0D1D	03357
NEXT	1DAB	07595	NEXT	1D55	07509
NEXT-2NUM	1C79	07279	DYADIC	1BDC	07132
NEXT-CHAR	0020	00032	(Get Nxt Char)	0020	00032
NEXT-LINE	1BD1	07121	(Set Nxtln use)	1B27	06951
NEXT-ONE	19B8	06584	RECLEN	1720	05920
NUMBER	18B6	06326	(Skip Over No.)	1602	05634
NUMERIC	2D1B	11547	DIGIT?	30D9	12505
ONE-SPACE	1652	05714	INS1	12B8	04792
OPEN	1736	05942	OPEN	142A	05162
OPEN-2	175D	05981	OPCHAN	1465	05221
OPEN-K	1781	06017	(Open K Strm)	14CE	05326
OPEN-P	1789	06025	(Open P Stream)	14D6	05334
OPEN-S	1785	06021	(Open S Stream)	14D2	05330

SPECTRUM NAME	HEX	DEC	TS2068 NAME	HEX	DEC
OUT	1E7A	07802	(Out Command)	1F04	07940
OUT-CHAR	1937	06455	(Print Line)	1683	05763
OUT-CODE	15EF	05615	PUTDIG	11EA	04586
OUT-CURS	18E1	06369	PR_CUR	162D	05677
OUT-FLASH	18C1	06337	FLASHA	160D	05645
OUT-LINE	1855	06229	PUT_SR	15A1	05537
OUT-LINE2	187D	06269	FUT	15C9	05577
OUT-NUM-1	1A1B	06683	PUT_BC	1788	06024
OUT-NUM-2	1A28	06696	PUT_LN	1795	06037
OUT-SP-2	1925	06437	(Prnt Char/Tkn)	1671	05745
OUT-SP-NO	192A	06442	(Add Spaces/No)	1676	05750
P-INT-STO	2D8C	11660	STDE_U	314A	12618
P-LOAD	1AE0	06880	TEMP39	19E1	06625
P-SAVE	1ADF	06879	TEMP38	19E0	06624
PAUSE	1F3A	07994	PAUSE	1FEB	08171
PIXEL-ADD	22AA	08874	SCRMBL	2603	09731
PLOT	22DC	08924	PLOT	2635	09781
PLOT-SUB	22E5	08933	PLOTBC	263E	09790
PO-ABLE	0AD9	02777	(Print Chars)	05F0	01520
PO-ALL-6	0BD3	03027	(Adjst fr Prtr)	0708	01800
PO-ANY	0B24	02852	(Print Chars)	063B	01595
PO-ATTR	0BDB	03035	ATTBYT	0710	01808
PO-BACK1	0A23	02595	P_LFT	053A	01338
PO-CHAR	0B65	02917	(Expand Chars)	069A	01690
PO-COMMA	0A5F	02655	(Print Comma)	0576	01398
PO-ENTER	0A4F	02639	P_NL	0566	01382
PO-F-PR	0B1D	02845	(P-Bfr Fetch)	0634	01588
PO-FETCH	0B03	02819	LDTVCU	061A	01562
PO-MSG	0C0A	03082	PUTMES	073F	01855
PO-QUEST	0A69	02665	(Print a "?")	0580	01408
PO-RIGHT	0A3D	02621	P_RT	0554	01364
PO-SAVE	0C3B	03131	PR_TV2	0776	01910
PO-SCR	0C55	03157	TVFUL?	0790	01936
PO-SEARCH	0C41	03137	(Search Table)	077C	01916
PO-ST-E	0AF0	02800	(Save Lwr Scrn)	0607	01543
PO-ST-PR	0AFC	02812	(Save Prnt Bfr)	0613	01555
PO-STORE	0ADC	02780	STTVCU	05F3	01523
PO-TV-2	0A6D	02669	(Ink - Over)	05B4	01412
POINT-SUB	22CB	08907	F_PNT	2624	09764
POINTERS	1664	05732	REMBSZ	12CA	04810
POKE	1E80	07800	(Poke Command)	1F0A	07946
PR-ALL	0B7F	02943	(Print a Char)	06B4	01716
PR-ST-END	2048	08264	TERM?	21E7	08679
PREP-ADD	2F9B	12187	SUMS	335A	13146
PRINT	1FCD	08141	K_PRIN	2159	08537
PRINT-2	1FDF	08159	P_SEQ	217E	08574
PRINT-A-1	0010	00016	WRCH	0010	00016
PRINT-A-2	15F2	05618	SENDCH	11ED	04589
PRINT-FP	2DE3	11747	OUTPUT	31A1	12705
PRINT-OUT	09F4	02548	SENDTV	0500	01280
RAM-CHECK	11DA	04570	(Check Memory)	0D40	03392
RAM-SET	1219	04633	NEW	0D7F	03455

SPECTRUM NAME	HEX	DEC	TS2068 NAME	HEX	DEC
RANDOMIZE	1E4F	07759	RAND	1ED4	07892
RE-STACK	3297	12951	FLOAT	3656	13910
READ	1DED	07661	READ	1D97	07575
READ-3	1DEC	07660	(Read after 1st	1D96	07574
REC-EDIT	16D4	05844	X_T_HL	1363	04963
RECLAIM-1	19E5	06629	DEL_DE	174D	05965
RECLAIM-2	19E8	06632	DELREC	1750	05968
REM	1BB2	07090	(Rem Command)	1B00	06912
REMOVE-FP	11A7	04519	DESLUG	0D0D	03341
REPORT-2	1C2E	07214	ERR2	1B91	07057
REPORT-4	1F15	07957	ERR4	1FCF	08143
REPORT-5	0C86	03206	ERR5	07C1	01985
REPORT-6	31AD	12717	ERR6	356C	13676
REPORT-B	046C	01132	(Report B)	04AA	01194
REPORT-B	1E9F	07839	ERRB	1F29	07977
REPORT-C	1C8A	07306	SYNERR	1BED	07149
REPORT-H	21D4	08660	ERRH	237E	09086
REPORT-J	15C4	05572	(Invl'd I/O Dev)	11BF	04543
REPORT-O	160E	05646	ERRD	123D	04669
RESERVE	169E	05790	LCU2	132D	04909
RESET	0066	00102	(NMI Ext Int)	0066	00102
REST-RUN	1E45	07749	RESTBC	1ECA	07882
RESTORE	1E42	07746	(Restore Comman	1E9D	07837
RETURN	1F23	07971	RETURN	1FD4	08148
RUN	1EA1	07841	(Run Command)	1F2B	07979
S-ATTR-S	2580	09600	F_ATTR	28D7	10455
S-INKEY\$	2634	09780	F_INKY	29F2	10738
S-LETTER	26C9	09929	(Test Variable)	2A87	10887
S-PI	2627	09767	F_PI	29E5	10725
S-RND	25FB	09720	RND	29B6	10678
S-SCRN*-S	2535	09525	F_SCRN	288E	10382
S-U-PLUS	25AF	09647	(Scanning Func)	296D	10605
SA-BYTES	04C2	01218	W_TAPE	X068	X0104
SA-CONTRL	0970	02416	SAVE	X851	X2129
SA/LD-RET	053F	01343	W_BORD	X0E5	X0229
SAVE-ETC	0605	01541	SLVM	X1AB	X0427
SCAN-LOOP	1B52	06994	(Get Cmd Class)	1A95	06805
SCANNING	24FB	09467	EXPRN	2854	10324
SEPARATOR	1B6F	07023	(Chk for Sprtr)	1AB2	06834
SERIES-06-ETC.	3449	13385	(Series Gen Sub	3808	14344
SET-HL	1190	04496	(Loc Wrk Space)	0CF6	03318
SET-MIN	16B0	05808	CLEL	133F	04927
SET-STK	16C5	05829	RESET	1354	04948
SET-WORK	16BF	05823	X_CALC	134E	04942
SHIFT-FP	2FDD	12253	SHIFT	339C	13212
SIN	37B5	14261	SIN	3BD0	15312
SKIP-OVER	007D	00125	(Control Chrs)	007D	00125
SLICING	2A52	10834	SLICER	2E10	11792
SQR	384A	14410	ROOT	3C65	15461
STACK-A	2D2B	11560	STK_A	30E6	12518
STACK-BC	2D2B	11563	STK_BC	30E9	12521
STACK-NUM	33B4	13236	STK_M	3773	14195

SPECTRUM NAME	HEX	DEC	TS2068 NAME	HEX	DEC
START	0000	00000	PLUGIN	0000	00000
START/NEW	11CB	04555	INIT	0D31	03377
STK-FETCH	2BF1	11249	POPSTR	2FAF	12207
STK-STD-\$	2AB2	10930	PSHSTR	2E70	11888
STK-STORE	2AB6	10934	PAEDCB	2E74	11892
STK-TO-A	2314	08980	GET_A	266D	09837
STK-TO-BC	2307	08967	GET_XY	2660	09824
STK-VAR	2996	10646	GET_EL	2D54	11604
STK-ZERO	32C5	12997	CALC	3684	13956
STMT-LOOP	1B28	06952	LS4	1A44	06724
STMT-NEXT	1BF4	07156	ENDTEM	1B4A	06986
STMT-RET	1B76	07030	ENDSTT	1AB9	06841
STOP	1CEE	07406	STOP	1C59	07257
STR-ALTER	2070	08304	STRITO	220F	08719
STR-DATA	171E	05918	(Test Strm No.)	140F	05135
SUBTRACT	300F	12303	SUB	33CE	13262
SYNTAX-Z	2530	09520	INTPT?	2889	10377
TAN	37DA	14298	TAN	3BF5	15349
TEMP-PTR1	0077	00119	NC_HL	0077	00119
TEMP-PTR2	0078	00120	TC_HL	0078	00120
TEMPS	0D4D	03405	R_ATT5	0888	02184
TEST-5-SP	33A9	13225	ROOM?	3768	14184
TEST-CHAR	001C	00028	(Tst Character)	001C	00028
TEST-ROOM	1F05	07941	CHK_SZ	1FBB	08123
TEST-ZERO	34E9	13545	TEST0	3904	14596
TD-POWER	3851	14417	TD_THE	3C6C	15468
TRUNCATE	3214	12820	TRUNC	35D3	13779
UNSTACK-Z	1FC3	08131	SYNTWD	214F	08527
USE-ZERO	1CE6	07398	STK_0	1C51	07249
VAL-FET-2	1C59	07257	LT22	1BBC	07100
VR-CONTROL	07CB	01995	(Verify Command	X58F	X1423
WAIT-KEY	15D4	05588	RDCH	11CF	04559
WAIT-KEY	15D4	05588	AKEY	X8AA	X2218

The Timex 2068 Tech manual lists:

TSNAME	HEX
DELSYM	0B7E
NEW	0D82
LDMES	3CAB

H.E. Weppler (Sep 85 CATS Newsletter) lists:

TSNAME	HEX	SPNAME	HEX
DELSYM	0B7E	(ED-DELETE)	1016
NEW	0D82	(RAM-SET)	1219
INPUT	222B	(INPUT)	208E
CALC	3684	(? STK-ZERO)	3254
LDMES	3CAB	(Program: Msg)	09C1

N.A. Pashtoon (May/June 88 Sincus News) lists:

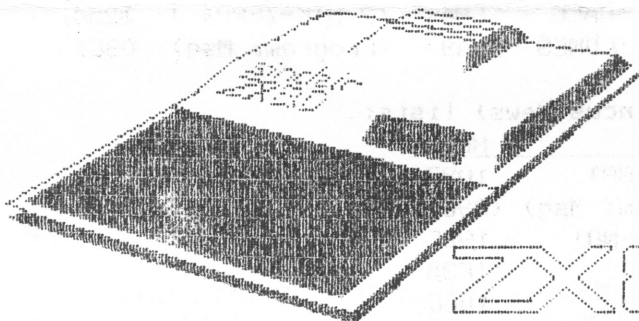
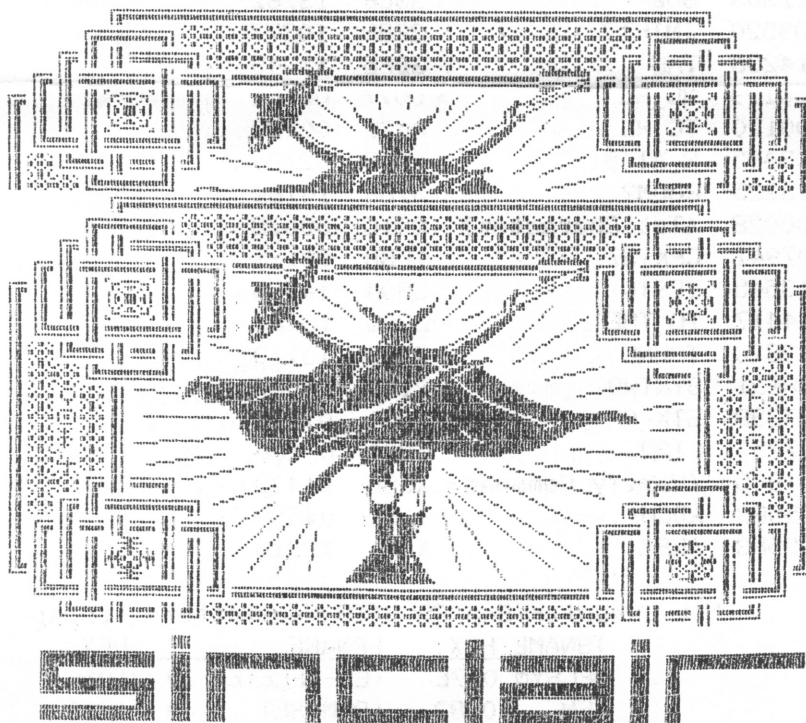
TSNAME	HEX	SPNAME	HEX
DEL_K	0BFE	(CLEAR-SP)	1097
LDMES	3CAB	(Program: Msg)	(09C1)
LINEND	1768	(E-LINE-ND)	19BF
PAUSE	1FEF	(PAUSE)	1F3A
READ	1D96	(READ-3)	1DEC

Convair B-58 Hustler

Type: Supersonic medium bomber
Power plant: 15,600 lb J79-GE-3B
Dimensions: Span, 56ft 10in
Length, 96ft 9in
Height, 31ft 5in
Weight: gross, over 160,000 lb.



Performance: max speed 1,385mph
at 40,000 ft
service ceiling,
50,000 ft



ZX80

PAH

LVTSUG(Las Vegas) reports that Herb Bowers of ABBA is no longer going to produce commercial soft ware. If you have orders with Herb contact him, as he will fill all his orders.

AfterFest Sale still on-some stuff still left! Two hard copies of Computus Interruptus at \$15 a copy- over 60 pages.

CLONE- a 2068 tape copier (2 modes) and header reader, and on the back side, a couple samples of our swap library-\$5

Computus Interruptus on Oliger or Larken format-5.25",DSDD - 40 track - \$5.

Make checks payable to SINCUS, thank you.

There is a chance that there will be another TS computer FEST somewhere in the Midwest, and the when is still in the wind. Hey folks, if you gotta a chance to attend a FEST pleade do- so what if it is a couple three hour drive? At the CATS fest some people drove half way across the country to attend, and they had also been at nearly every FEST there has been! But if you dont support the FESTs, they will soon not be, ever, never...and it will be all your fault. So dont make me point the finger at you! Go-share a ride, fly, whatall but go, and all the people you meet will be great because they did the same thing for the same reason and you'll have a GREAT time.

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SINCUS will leave messages on HAM-BONE BBS-(607)754-7498 "J-B" 8-N-1 24hrs 3-1200B as of 7-1-89 this BBS is uncertain - cannot logon - believe it is unattended

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In the last issue of SINCUS NEWS a tidbit on the Chicago area BBS included a whole bunch of info - and after the article appeared I tried the number, and entered the logon data, and got nowhere! Well I don't wish to run up a phone bill arguing with a computer. Anyone else have any luck? or no luck? I suppos I shoulda tried before I printed the article- be glad to hear from anyone else on this.-PAH

In the Sep/Oct 88 issue, page 3 tip # 11, Don's code was short changed and here is the missing code. Now it will make sense, right?

<u>Disassembly - ADDRESS 40B2 to 40B4</u>			<u>ADDRESS F.P. Numbers</u>					
40B2 00	4091 C61C	40A8 7A	16514 D	8F	01	04	00	00
40B3 00	4093 D7	40A9 CD8440	40B2 H	8F	01	04	00	00
40B4 F5	4094 AF	40AC 79	7530 H	8F	6A	60	00	00
40B5 E6F0	4095 D7	40AD CD8440	30000 D	8F	6A	60	00	00
40B7 1F	4096 C9	40B0 7B	080 D	87	20	00	00	00
40B8 1F	4097 ED4BB240	40B1 CD8440	0050 H	87	20	00	00	00
40B9 1F	409B CD2015	40B4 C9						
40BA 1F	409E CDF813		Sorry this was so late in					
40BB C61C	40A1 CD8440		getting in print Don, hope					
40BD D7	40A4 7B		this helps more than					
40BE F1	40A5 CD8440		confuses. PAH					
40BF E60F								

Hope you all had a Great Red, White and Blue Fourth of July, and have a Great summer time - Keep on computin'